

Remarks/Arguments

Reconsideration of this application is requested.

Claims 1-28 have been rejected by the Examiner under 35 USC § 103 (a) as being unpatentable over Leon (U.S. Patent 6,701,304) in view of Sansone (U.S. Patent No. 6,574,000) and Abello (US 2005/0260021 A1).

Leon discloses the following in lines 18-41 of column 13.

"FIG. 5 shows a block diagram of an embodiment of an authentication system 500 for the detection of fraudulent postage indicia. A mail piece 502 that includes a printed indicium label 504 is provided to the authentication system. Within the authentication system, a data reader 510 reads the human-readable information on the postage label, a symbology reader 520 reads the machine-readable information (e.g., the FIM marking, bar code, and others), and a marking detector 530 detects other imprints that may or may not be visible. The marking detector is designed to detect features not detected by readers 510 and 520. For example, the marking detector can be designed to detect the identifiers and markings printed on the label, the use of invisible and/or fluorescent ink, the micro printing, taggants in the ink, and other features described above.

The information detected by these elements is passed to a computer 540 that analyzes, verifies, and authenticates the information retrieved from the postage label. For example, computer 540 can authenticate a digital signature that is imprinted on the postage label (i.e., using the SMD's public key that is provided in, and detected from the postage label). Computer 540 may also authenticate the postage information by comparing the decoded data with the unencoded data from the postage label."

Leon discloses the following in lines 53-67 of col. 9.

"Taggants can be manufactured specially for a particular postage service provider, and can be used to uniquely identify that provider. Thus, even if the ink and its fluorescent identifier are duplicated, the presence of taggants allows for analysis of indicium to determine whether it originates from an authorized metering device. Taggants can be used to discourage counterfeits, and are especially effective because of their unsuspecting nature. In one specific embodiment, taggant beads are manufactured with multi-colored layers that are visible, for example, under a microscope. The color layers can be arranged in patterns to encode information such as manufacturer's name, a batch number, or other information. For example, each manufacturer can be assigned a unique color pattern that identifies that manufacturer."

Leon detects the identifiers and markings printed on the label and the use of invisible and/or fluorescent ink. Leon may also authenticate a digital signature and utilize color taggants to encode a manufacturers name.

Sansone discloses the following in line 62 of col. 3 to line 26 of col. 4.

"FIG.2 is a drawing of a Information-Based Indicia containing a code that represents the printer, printer settings, ink, or toner and paper in which the indicia was printed. The postal indicia 20 contains a dollar amount 13, the date 14 that the postal indicia was affixed to the mail piece, the place the mail piece was mailed from 15, the postal meter serial number 16, a FIM code 17 and a 2D encrypted barcode 18. Mail piece 12 is going to be sent to the person and place indicated in address field 20.

Postal Indicia 21 has a human readable or machine readable code 22 that represents the postal customer's or mailers printer type and configuration setting-information, paper, ink, or toner combination. Code 22 may be of the form A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P and Q. Where, the positions held by letters A and B may be used to represent the manufacturer of the printer that printed indicia 21 and the positions held by letters C, D, and E may be used to represent the model of the printer that printed indicia 21. The position held by letter E may be used to represent the print density of the printer that printed indicia 21 and the position held by letter F may be used to represent the print dither type of the printer that printed indicia 21. The position held by letters G and H may be used to represent the envelope size of the envelope in which indicia 21 was affixed and the position held by letters I and J may be used to represent the paper type in which indicia 21 to was affixed. The position held by letters K, L, and M may be used to represent the type of ink that was used to print indicia 21 and the position held by letters N, O and P may be used to represent the toner type in which indicia 21 was affixed. Letter O may be used as a control for error correction."

The position held by letters K, L and M are used by Sansone to represent the type of ink that was used to print indicia 21. The foregoing information is used along with the mailers printer type, printer configuration settings, paper to enable the mailers printer to print an Information-Based Indicia, if the mailers printer that is going to print the indicia is found on a "Information-Based Indicia Approved Printers List." Sansone adds the printer information to an Information-Based Indicia print field to provide evidence that an approved printer was used to print the Indicia.

The Examiner stated the following in pages 6 and 7 of the June 20, 2006, Office Action.

"Leon as modified by Sansone fails to teach the ink data being ink physical characteristic data; the at least one symbol including ink physical characteristic data that is indicative of a physical characteristic of the ink; the ink characteristic data is indicative of respective colors of the plurality of panels; wherein at least two of the panels are different colors; wherein the ink characteristic data is indicative of at least

one spectral characteristic of the ink; wherein the ink characteristic data is indicative of at least one luminescence characteristic of the ink."

"Abello teaches the use of indicia (a letter, for example, see paragraph 80) to identify ink physical characteristic data (the letter indicates the color of the ink, see paragraph 80)."

"[0080] Each pen is identified by a letter and a numeral. The letter indicates the colour ink being printed according to the following code: T=post-printing treatment (this can be of any suitable type); Y=yellow; M=magenta; C=cyan; K=Black; F=fixer (note that the fixer is laid down before the inks, and the last printbar to print on the page is the post-printing treatment T. The numeral indicates the printhead controller which is responsible for generating the firing instructions for the nozzles of the pen in question."

Abello uses numerical letters to indicate the print head controller that is responsible for generating the firing instructions for the nozzle of the pen in question. The numerical letters are used as control instructions.

Leon, Sansone or Abello taken separately or together do not disclose or anticipate the following steps of claim 1 and those claims dependent thereon namely, detecting means for detecting at least one ink physical characteristic of the indicia to generate second ink characteristic data; and processing means, coupled to the reading means and to the detecting means, for comparing the second ink physical characteristic data with the first ink physical characteristic data.

Applicant's claimed apparatus utilizes the physical characteristics of the ink not just the name of a manufacturer. The physical characteristics of an indicia vary from indicia to indicia. Applicant encodes in each indicia data that indicates the characteristics of the ink employed for printing the indicia. The foregoing makes it more difficult to counterfeit postal indicia and may aid in machine inspection and verification of postage indicia.

Leon, Sansone or Abello taken separately or together do not disclose or anticipate detecting at least one of a spectral characteristic of the indicia, a visible light absorption characteristic of the indicia, a visible light reflectance characteristic of the indicia, an infra-red absorption characteristic of the indicia, an infra-red luminescence characteristic of the indicia, and a visible luminescence characteristic of the indicia as claimed in claim 10.

Leon, Sansone or Abello taken separately or together do not disclose or anticipate the following element of claim 15 and those claims dependent thereon namely, processing means coupled to the print element for causing the print element to print at least one symbol as part of the

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indicia, the at least one symbol including ink physical characteristic data that is indicative of a physical characteristic of the ink.

Leon, Sansone or Abello taken separately or together do not disclose or anticipate the following step of claim 22 and those claims dependent thereon namely, applying the ink to the substrate to form an indicia such that the indicia includes at least one symbol, the at least one symbol including ink physical characteristic data that is indicative of the physical characteristic of the ink.

The cited references do not disclose or anticipate detecting data that indicates physical characteristics of the ink that was used to print the indicia and comparing the physical ink characteristics to verify the indicia.

Claim 15 has been amended so that it will be clearer.

In view of the above claims 1-28 as amended are patentable.

If the Examiner has any questions would the Examiner please call the undersigned at the telephone number noted below.

Respectfully submitted,



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